### LONG ISLAND BOTANICAL SOCIETY NEWSLETTER

July - Aug 1993 Vol. 3, No. 4

### In This Issue

Celia and Julius Hastings have submitted an article on two new species of orchid for Long Island. The species are *Platanthera pallida* P. M. Brown and *Malaxis bayardii* Fern. For more information on the endangerment of L.I. Orchids see the Society News. p. 25.

Thomas Allen Stock of Smithtown sent a very interesting article about the Garlic Mustard (*Alliaria officinalis*) a plant many of us would rather not see. But after reading this article you will see it with new eyes. p. 26.

I have included the first part of an article written in 1936 by **H. K. Svenson**. I will complete the article in subsequent issues. This article recounts the early vegetation of Long Island. I would be interested in additional articles that have appeared in the past but are out of print or published in less commonly known publications. p. 27

H. David Ritchie wrote a wonderful artist's statement about life on Long Island Sound. Dave and his wife Jane live on the Sound in Northville, Long Island. Jane's paintings, shown in East Hampton and Boston, Mass., are included in numerous corporate and private collections. p. 30.

The nominations committee is requesting nominations for officers. If you or anyone you know are interested please feel free to nominate them. See more info in the Society News.

### **PROGRAMS**

No evening programs have been scheduled for July and August; programs will resume in September.

## ORCHID ENTHUSIASTS CELEBRATE

1992 was a banner year for orchids on Long Island. Two new species were added to the impressive list (Latham 1940; Lamont et al. 1988) already available. Of the two, the "pale fringed orchis," Platanthera pallida, has the more extended history beginning with the description of a "pale cristata" discovered in East Hampton by Roy Latham in 1926. The pale color, as compared with the rather intense orange of the typical P. cristata, attracted the attention of a number of observers who, however, followed R. Latham's original classification. One of the observers, Charles Bryan, an orchid devotee (and, I note, a chemist) kept meticulous notes of his botanical forays. including two visits (1939



Platanthera pallida P. M. Brown from Mitchell & Sheviak, Bull. NYS Museum 445. 1981

and 1948), to Napeague Harbor where he saw the orchid with the "dingy sulphur color". His notebooks were subsequently loaned to Paul Martin Brown, a botanist and teacher who works closely with the New England Wild Flower Society and led to his awareness of these plants. Brown first visited the Long Island sites in 1986 and joined the ranks of puzzled observers of the "pale" *P. cristata*. He returned for several visits in 1991 and made a series of meticulous field measurements together with habitat descriptions. These observations culminated in a publication in NOVON (Missouri Botanical Garden) Vol. 2, No. 4

### Orchid enthusiasts celebrate cont'd

(1992) in which a new species of fringed orchis, *Platanthera pallida*, (Orchidaceae) was announced.

The other addition to the Long Island list of orchids involves a less conspicuous, one might almost say insignificant, member of the Malaxis unifolia group, i.e. Malaxis bayardii, first reported by Fernald (1936). The new species was controversial and consequently ignored by most of the leading authorities. In 1991, Catling (1991), in a characteristically thorough study, undertook to determine whether M. bayardii is a distinct taxon. The major tool used was the analysis of lip shape in 143 carefully selected flowers chosen to represent variation in the M. unifolia group in North America. Secondary characteristics such as preferred habitat and shape of the inflorescence were noted. Catling concluded the "M. bayardii is to be recognized as a distinct taxon worthy of specific rank. Differences between M. unifolia and M. bayardii may be difficult for some to assess, but as with many species their recognition becomes easier with increasing familiarity." The reclassification of the Malaxis plants growing along a roadside in Manorville was made by P. M. Brown, S. Young, E. Lamont and F. Knapp (see LIBS Newsletter 2(1): 3.) in 1992, a year to be remembered .-- Celia and Julius Hastings

Latham, R. A. 1940. Distribution of Wild Orchids on Long Island. L. I. Forum 3: 103.

Lamont, E. E., J. M. Beitel, and R. E. Zaremba. 1988. Current status of orchids on Long Island, New York. Bull. Torrey Bot. Col. 115: 113.

Fernald, M. L. 1936. Plants from the outer coastal plain of Virginia. *Malaxis bayardii* Fern. Rhodora 38: 402-404.
Catling, P. M. 1991. Systematics of Malaxis bayardii and M. unifolia. Lindleyana 6: 3-23.

#### New Members

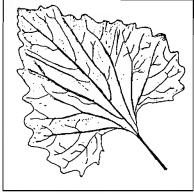
Lance Biechle, Princess Anne, MD
Dr. Erica Brendel, Philadelphia, PA
Gary Chatten, Miller Place
Jean Held, New York City
David G. Hinchliffe, Huntington
Carol Lemmon, Branford, CT
Virginia L. Magee, Uncasville, CT
Dr. Margery Oldfield, Seatuck Foundation, Islip
Cal Snyder, AMNH, New York City
Ellen Talmage, Riverhead
Richard Valchich, Brooklyn
Jane Weissman, New York City

### Alliaria officinalis

Gray's Botany says garlic mustard can be found along roadsides and near habitations. Aside from a chock of botanical vocabulary, Gray's book hardly tells you anything about the personality of this herb.

In winter, I found it's deeply incised, heart-shaped leaves close to the ground. They manage to survive freezing weather unscathed. They do not have the fuzz that several other species have, so I do not know what adaptation the leaves have for cold. Perhaps it's ethylene glycol antifreeze.

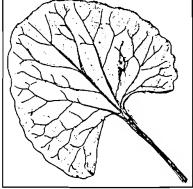
Garlic mustard waits patiently for spring. Then some plant growth hormone kicks in and this second stringer suddenly makes it's move. It comes off the bench and begins to spurt upward. By early May, it is shooting up like a gangly



Upper Leaf of Garlie Mustard. Rubbing.

teenager. One who who suddenly undergoes a growth spurt. It blossoms when two feet high.

The flower of this plant has four tiny white petals that look like the prop of an airplane. The seed pods are long candlelike spurs that remind me of saguaro cactus plants. It's basal leaves are rather oval, while upper leaves are more



Lower Basal Leaf of Garlic Mustard. Rubbing.

triangular. Crushing an upper leaf causes the smell and taste of garlic to be discernible.

By June, garlic mustard is on the wane. It is beginning to dry out and die, it's seed pods filled with tiny black, elongated seeds. The life cycle now begins anew and the seeds fall to the earth and sprout in the fall, just in time to withstand the rigors of winter.

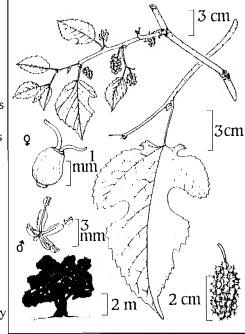
It's nice to have such friendly greenery to greet us as we hike along trails or roadsides. Look for it the next time you're outdoors.--Thomas Allen Stock

## The Early Vegetation of Long Island

[Editor's Note. The following is an excerpt from an article published by II. K. Svenson in the Brooklyn Botanic Garden Record 25: 207-227. 1936. I will be reprinting portions of this article and others as space permits]

On colonial Long Island, as in other lands under colonization in the seventeenth century, the task of obtaining food and conquering the aborigines seems to have been time-absorbing. Therefore, few observations on the early appearance of the vegetation of Long Island have come down to us, and these observations tend to be generalized and often contradictory, or have the soaring exuberance of the real-estate salesman of that day. Perhaps some of the earliest explorers such as Verrazano touched upon the shores of Long Island, but the first descriptions, and they are meager, appear to be those of Henry Hudson, who anchored at the western shores of Long Island in September, 1609. Here "they found the soil of white sand, and a vast number of plum trees loaded with fruit, many of them covered with grape vines of different kinds." Some of his men, landing near Gravesend on September 4th, came back to the ship charmed with their glimpse of the new country and described it as "full of great tall oaks, and the land as pleasant to see, with grass and flowers, as they had ever seen." According to Daniel Denton, who lived at Hempstead in 1670, "The fruits natural to the Island

are Mulberries. Poisimons, Grapes, great and small. Plumbs of several sorts and Strawberries of such abundance. that in Spring the fields are died red...." A footnote by Miss Flint identifies the mulberry as Morus



Morus alba from Mitchell. 1988. Bull. NYS Museum 464.

rubra, a native species well developed in the interior. but known only from a few specimens and reaching only a small size of Long Island. It is more than probable that these trees were the white mulberry, Morus alba, which was extensively planted in the early days for silkworm culture, some of the early land grants along the Atlantic coast even making obligatory. the planting of a certain number of mulberry trees on each partition of land. The extent of mulberry-tree plantings may be estimated by the following excerpts quoted by L. H. Bailey, Evolution of Our Native Fruits, p. 145. "If all the highways in country towns were ornamented with a row of mulberry trees, on each side, half a rod apart, each mile would contain 1380 trees, the income of which, after seven years, would probably pay for repairing all the highways and the expenses of the public schools, if the inhabitants would retrain their cattle and sheep from going at large" [Cobb, J. H. Manual of the Mulberry Tree. Boston, 1831], and

> In Spring our trees the Caterpillars reare; Their trees likewise these noble creatures beare,

They feed not only on the Mulberry
Which in our World sole food is held to be
For all such precious Worms of that degree:
But Poplar, Plum, Crab, Oake, and Apple tree,
Yea Cherry, and tree called Pohickery.
[Samual Hartlib. The Reformed Virginian Silkworm. 1655]

Some of the early Long Island nurseries were instrumental in fostering a revival of mulberry-growing for the production of silk, during the period from 1830 to 1840, a venture based this time on the much-extolled *Morus multicaulis*, but ending in a sudden collapse of the mulberry boom and bankruptcy of a large number of horticultural firms and land owners.

To return to Denton's description of the countryside, "The greatest part of the Island is very full of timber, as oaks white and red, walnut trees, chestnut trees which yield store of mast for swine, also red maples, cedars, sarsifrage [?sassafras], Beach, Holly, Hazel with many more ... in May you should see the Woods and Fields so curiously bedeckt with Roses and an innumerable multitude of delightful Flowers not only pleasing to the eye but smell .... That you may behold Nature contending With Art and striving to equal if not exceed many Gardens in England .... One may drive for hours through embowered lanes, between thickets of alder and sumach, overhung with chestnut and oak and pine, or through groves gleaming in spring with the white bloom of the dogwood, glowing in fall with liquidambar and peperidge, with sassafras, and the yellow light of the smooth-shafted tulip tree."

### The Early Vegetation of Long Island cont'd

These accounts by Denton give a general idea of the vegetation of Long Island, although there is a great variation in the different parts. Long Island is dominated by the great moraine left by the ice sheet of the Wisconsin period, extending from Montauk to Brooklyn. On the moraine and northward to Long Island Sound the island, especially the western part, was undoubtedly heavily wooded with large timber of an aspect similar to the forests of the Connecticut coast. South of the moraine the hugh outwash plain of sand and gravel provided only the most sterile types of soil and was covered mostly with the pitch pine, forming a continuation of the pine barrens of New Jersey. According to reports by Mather and Brockett. the soil of Kings County was more fertile than other parts of the Island: thus "the soil of this county possessed of greater natural fertility, than that of the other portions of the Island, and it is highly cultivated. It is well adapted to horticulture, and flowers arrive at great perfection. The grape is extensively cultivated throughout the county. Little timber is found." According to Stiles the earliest recorded grant in the County of Kings was made in June, 1636, to Jacob Van Corlaer, who purchased from the Indians a flat of land between the North River and the East River. These "flats" which upon cultivation were incorporated into the village of "New Amersfoort" in the Flatlands, were according to Stiles, "miniature prairies, devoid of trees, and having a dark-colored surface soil; and having undergone a certain rude culture by the Indians. were ready, without much previous toil, for the plough. On this account they were most sought for, and first purchased by the original settlers, who being natives of the low and level lands of Holland and Belgium, were inexperienced in the clearing of forests." As to the kings of trees which were on these lands, we have only occasional surveyors' reports such as the following [Stiles, p. 51]: "I have surveyed [9th January, 1895] for Adrian Bennett a certain parcel of land ... it runs alongst the said land and markt trees to a certain chestnut standing on the top of the hill with three notches, and thence to a black oak standing on the south side of said hill." In commenting on the early names of Long Island (Mectowacks, Seawanhacky, etc., all meaning "Island of Shells"), Thompson mentions that "the land was in most places destitute of timber."

The vegetation of Queens County, as stated by Mather and Brockett was "principally oak, hickory, chestnut and locust<sup>1</sup> in great abundance. In the

The locust tree is not native to Long Island, but according to

northern part, the apple, pear, peach, cherry &c., thrive well. Wheat, corn, and grass, are also favorite crops."

Farther to the eastward, where the suburban developments of Garden City, Hempstead, and Mineola now spread themselves out, there can be seen portions of the Hempstead Plain, a treeless area of natural prairie originally sixteen miles in length and covering sixty thousand acres. The soil, as described by Flint was "too porous to be plowed," and "no attempt was made at cultivation until within a hundred years, when it was first enclosed as farms." "The grass formerly grew to the height of five or six feet, but the earliest variety--Secretary grass--was short and fine, making a very thick, tough sod, which required two yokes of oxen in breaking it up." For a long time these plains were common pasturage, and they became not only the center of the wool-raising industry on Long Island, but also, from the earliest times, due to their level stoneless expanse, they were a meeting ground for horse-racing. Daniel M. Tredwell (Reminences of Long Island, p. 91. Brooklyn. 1912.) describes the plains as a "territory reserved by the original, or in the original grants or patents, to the inhabitants of the town for pasturage of cattle and sheep, and in the early days of the colony thousands of cattle and sheep were pastured there. The further privilege was granted to every freeholder of cutting grass on said plains. The commissioners of highways were required to keep open the means of access to the public watering places, and for the purpose of looking after the interest of freeholders who patronized the public lands...."

These plains are to the present day covered by an exceedingly hard turf of beard grass (Andropogon scoparius), the firmness of which has probably been to a large extent instrumental in preventing the growth of trees. Where this turf has been broken through, young black cherries and poplars often put in their appearance. In the spring great areas of these plains have a blue tinge due to the flowers of Viola pedata; with these are often associated the pink polygala (Polygala polygama), blue-eyed-grass (Sisyrinchium), and the basal rosettes of Aletris farinosa. Clumps of wild indigo (Baptisia tinctoria) and the dwarf willow (Salix tristis), stand out as knob-like projections on these plains. These species have been discussed in some detail in the study of the Hempstead Plains by Henry Hicks, who stated that the grass was probably very much taller originally than at present, this contention being expressed by such phrases as "a man

reports, was brought from Virgina as an early date. It has established itself exceedingly well, spreading into dense thickets which have the appearance of a native growth.

might miss his way in the tall grass" and "cattle lying down in the grass were lost to sight." Vertical sections of the pains show "first a thick and firm turf in black soil over a layer of yellow loam, underlain to great depths by quartz gravel and sand disposed in small and thin strata, as if deposited by rapid currents. ... Through this material the water of rainfall rapidly descends to the spring level.... This perfect drainage together with the thinness of the surface soil and the general climate largely determines the character of the flora on the Plains and the Pine-barrens to the eastward."

The Plains have been more recently discussed by Roland M. Harper. "The prairie," he says, "known locally as the 'Hempstead Plains,' is mentioned in a few historical and descriptive works, but long before geography became a science it had ceased to excite the wonder of the inhabitants, few of whom at the present time realize that there is not another place exactly like it in the world.... The upland vegetation of the Plains comprises about four species of trees, a dozen shrubs, sixty herbs, and a few mosses, lichen and fungi.... Our prairie is subject to a good deal of grazing, frequent fires, strong wind, and excessive evaporation, like the western ones, but these factors are the result rather than the cause of treelessness, so that they could hardly have determined the prairie in the beginning nor fixed its present boundaries.... Even if no more of this land were taken up in farms, the continued growth of New York City is bound to cover it all with houses sooner or later."

East of the Hempstead Plains and covering the larger part of the island stretches a great waste of pinecovered barren, interrupted here and there by solid and impenetrable thickets of dwarf oak (Quercus ilicifolia, Q. prinoides), scarcely more than knee high; at intervals, as in the region south of Port Jefferson there are openings of clean white sand, inhabited by the blue lupine, clumps of yellow *Hudsonia*, and trailing vines of "deer food" (Arctostaphylos Uva-ursi); an area comparatively recently described by Thompson as "almost entirely in its wild native state and not house or hut is to be seen for many miles." There barrens, extending eastward until they meet the open downs of the seacoast, have an appearance identical with the wilderness surrounding the Pilgrim settlements at Plymouth, and as in the Plymouth wilderness, they are dotted with clear sandy rimmed ponds. For the largest of these (Lake Ronkonkoma) "the Indians had a most superstitious reverence." Bailey, in describing the cranberry-growing region of Plymouth County, so clearly depicts an area similar to that of eastern Long Island that I have included here a part of this description.

"This Cape Cod region is but a part of the sandy waste which stretches westward through Nantucket, along the north shore of the Sound and throughout a large part of Long Island; and essentially the same formation is continued along the Jersey seaboard. Here the sea-coast vegetation meets the thickets of alder and bayberry and sweet fern, with their dashes of wild roses and viburnums. And in sheltered ponds the sweet water-lily grows with rushes and pondweeds in the most delightful abandoned. In the warm and sandy glades two kinds of dwarf oak grow in profusion. bearing their multitude of acorns upon bushes scarcely as high as one's head.... But while we are busy with our expectations, we are plunging into a wilderness,-not a second growth, half-civilized forest, but a primitive waste of sand and pitch-pines and oaks!"

The Long Island pine barrens extend eastwardly to the windswept Shinnecock Hills which "assume some permanence of form, held together by a coarse, wiry grass, but sustaining only the stunted bayberry, the beach plum and the dwarfed red cedar," and James Truslow Adams, has unearthed some older descriptions of these hills "composed almost entirely of fine sand, ... cept extensive patches of whortle berry, bay berry and other small shrubs. A succession of ... sand hills, like the ground mentioned in the description of Cape Cod, ... exhibit a desolate and melancholy aspect."

To be continued.

### 1993 Rare Plant Status List Update.

Stephen Young from the New York Natural Heritage Program has updated the New York Rare Plant Status List. He stated that a total of 115 taxa were updated. He wrote "This year was an especially big year for changes because of two factors:

1) intensive and successful field work in 1992 discovered many historical species and new sites which resulted in many rank changes and new county occurrences and 2) a meeting with the State Museum, the DEC and The Nature Conservancy was held to reevaluate the protected status of all rare plants in the state. This resulted in more rank changes and changes in tracking status."

If you want more information about this list contact **Stephen M. Young**, New York Natural Heritage Program, 700 Troy-Schenectady Road, Latham, New York, 12110-2400.

# MY OUTSIDE WORLD The Long Island Experience

AN ARTIST'S STATEMENT...

In Brooklyn growing up my outside world was bricks and steps and riding my bike two blocks to the Parade Grounds on the edge of Prospect Park, and the walks with my mother and my sisters to the Botanic Garden.

On Long Island Sound the summers were all outside things between different skies and textures of water, dark and light cliffs and green and living things in nature and in glass bottles or stuck with pins. A sense of place and forms and angles of nature has been my life. There is no finer place than the one I see. Landscape is continuing time. I paint where I am, working through middle ground to a place beyond. The bright present leads to an open place in the future. The far shore and infinite horizon occur later on, as the sound to a hearer who has already seen the bell-struck.

In those young summers I tried to paint the hint of more points, more sea cliffs beyond the two I could see from out porch. I knew they were there because we walked past those two points to Penny's Rock, and went once in the boat past the sunken freighters and nun's place all the way to the cold spring. It took us three hours down and four hours back. There were other points of land, different cliffs.

Except for thunder I loved the rain and storms and wet colors with edges sharp as lightning. I loved the water trying to look like the sky, and the black leaves in the yellow light. The Long Island experience for me then was almost completely diurnal, opening like a flower in the morning and closing up around me at sunset when I had to be in. Moving through that ephemeral time the sun set in the water almost every night as we looked westward over a boundless "sea," limited only by a low smoky line of shore on the Connecticut side on clear days, and a blinking light some nights.

Scale was magnified, a flat landscape of potato fields and sentinel cedars against a superdome sky; a sea that began at my feet and rolled back to the same open sky, melding hue and texture.

I liked what we found, the pignuts and sassafras, joe-pye weed; Saint-John's-wort, wild cherries and sour-grass; Concord grapes, specimen creatures; and finally, the big tree. Our tree with smooth bark and long cradling arms and trunk with all our names on it.

It was dark and cool underneath, and the earth was patted down around it under our bare feet.

Later, we found the private preserves and old Indian lands, with tender heather on the floor of the marshes and undiscovered inland streams between the mounds and necks of grasses.

It's a living changing time and place, newly made each day and hour; darker, lighter; quieter, noisier; tender, tougher; resilient, stiffer; hot and icy.

It's my outside world .-- H. David Ritchie

### SOCIETY NEWS

May Meeting--May 11

Skip and Jane Blanchard reported that they found seedling Magnolia tripetala at the south end of Blydenburgh Park near Veterans Highway. It is also known to be seeding into Shu Swamp. Barbara Conolly reported finding it that morning in St. John's Pond woods in Cold Spring Harbor.

Gary Kennear reported a small white violet in a muddy place in Westhampton, and it was adjudged to be *Viola blanda* or *V. pallida*, with the latter more likely.

Eric Lamont found *Viola primulifolia* in Moore's Woods, Greenport and *Ranunculus micrantha* on a ridge in Hook Mt. on May 8th.

Eric Lamont reported on the field trip he led to Shinnecock Hills on April 24th. There was a good turnout from the South Fork Naturalists group, and mention was made of four kinds of *Amelanchier* plus *Poa bulbosa* and *Epigaea repens* in the open.

Betty Lotowycz brought in *Poa bulbosa* from Rte. 97 nr Stony Brook, and Indian Strawberry, *Duchesnia*.

Bob Laskowski brought in Sand Cherry, *Prunus* pumila from the Edwards property in Islip.

Paul Teese, a graduate student at SUNY, spoke on the evolution of a Photo-synthetic Pathway - especially in the Asteraceae. We learned that plants have three ways of assembling and operating their photosynthetic machinery - C3, C4 and CAM. He is concerned with a southern Goldenrod, Flaveria linearis, which is a C4, and outlined his experiments which lean toward the theory that C4s evolved to cope with heat.

### June Meeting- Jun 8

Skip Blanchard, Barbara Conolly and Betty Lotowycz reported on the NYFA field trip to Valcour Island in Lake Champlain. They had a marvelous time and saw lots of Ram's-head Ladyslipper (Cypripedium

arietinum).

**Steve Clemants** reported finding Opium Poppy (*Papaver somniferum*) outside the Brooklyn Botanic Garden.

Skip Blanchard presented a seminar on his research into the chromosomes of Kosteletzkya (Malvaceae). He presented evidence that the African species have crossed and that allopolyploidy events occurred to produce several of the species now found in Africa. He also presented evidence that all the American species are closely related and probably more recent than the African species. His talk was illustrated with many slides of his travels to Africa and Mexico to search for species of Kosteletzkya.

### Report of the Nominating Committee

The Nominating Committee, chaired by Betty Lotowycz, is in the process of finalizing a slate of potential officers for 1994-1995, and is now accepting nominations from the membership. A final slate of nominees will be presented to the membership in the September/October issue of the LIBS newsletter, and elections will be held at our monthly meeting in November, 1993. If you would like to nominate someone (including yourself) for an office or standing committee please contact Betty at 676-2047.

### Report from the Education Committee

The educational display of LIBS was exhibited at the Earth Day Spring Festival at Heckscher State Park on April 24th. Over 13,000 visitors attended the festival. The main goals of the display are to educate the public and promote botany of Long Island. Plans are currently being made to exhibit the display at the 1993 Fall Flower show at Planting Fields Arboretum and at the 1993 Theodore Roosevelt Sanctuary Fair. If you can donate a few hours to help man the exhibit at either of these events please call Mary Laura Lamont at 722-5542.

The education committee has also initiated botany programs at some local school districts. This past spring, programs were given at Aquebogue elementary school and at Shoreham-Wading River High School.

### Executive Board Meeting

On 25 May 1993, officers of the Long Island Botanical Society gathered for the spring board meeting. Anyone interested in receiving a copy of the minutes from the meeting should contact **Barbara** Conolly at 922-5935.

### Orchid Taskforce

Dorothy & Moreno Tagliapietra-Cherbavaz have begun compiling information on the threat to orchids along roadsides in East Hampton. They have already compiled a large file of newspaper clippings, letters and articles. If you have information that might be pertinent or wish to help with this project please contact Eric Lamont.

### **Programs**

No programs have been scheduled for July and August; programs will resume in September.

### Field Trips

- July 11, Sun, 10:30 A.M., Plants and butterflies at the Edgewood Oak Brush Plains. Skip Blanchard, who did some Natural Heritage Program work at this interesting site in summer '92, will talk about and point out butterfly-plant relationships. Participants may want to bring lunch or a snack. Canceled if raining. Directions: from LIE Exit 52 or Northern State Parkway exit 43 go south on Commack Road (rte. 4) about 2 or 3 miles, respectively, to the entrance to the site on the left. There is no sign, but there is a gate to a dirt parking lot surrounded by an earthen embankment. Contact Skip at (home) (516) 421-5619. Participants should bring short focal length field glasses for looking at butterflies
- Aug 7, Sat., 10:00 AM. Al Lindberg will give a tour of Wertheim National Wildlife Refuge. Meet at the Refuge gate. Call Al in advance to reserve a space (Al at work 516-922-3123, home 516-922-0903). We will gain an overview of the refuge including it's pine-barrens, uplands, marshes and swamps. We will visit Carmans River and Yapahank Creek. Bring a lunch.
- Aug 21, Sat. 9:30 AM. Bob Laskowski will direct a tour of the FAA Property in West Sayville. Meet at the intersection of Montauk Highway and Cherry Ave. near the West Sayville Fire Department. No advance registration is needed, however, you may call Bob at 516-277-0527 if necessary.
- Sept. 11, Sat, 9:30 AM. John Turner will lead a
  Tour of Long Island's White Cedar Communities.
  More information will be present in the August
  Newsletter.

### LONG ISLAND BOTANICAL SOCIETY

Founded: 1986; Incorporated: 1989.

The Long Island Botanical Society is dedicated to the promotion of field botany and a greater understanding of the plants that grow wild on Long Island, New York.

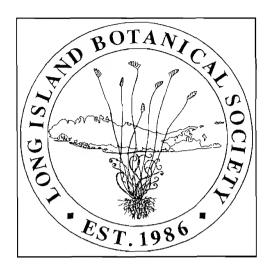
Eric Lamont President Vice President Chris Mangels Carol Johnston Treasurer Barbara Conolly Recrd Sec'y Jane Blanchard Cor'sp Sec'y Local Flora Skip Blanchard Field Trip Glenn Richard Lois Lindberg Membership Louise Harrison Conservation John Turner Margaret Conover

Education Mary Laura Lamont
Hospitality Nancy Smith
Joanne Tow

Program Eric Lamont
Editor Steven Clemants

Membership

Membership is open to all, and we welcome new members. Annual dues are \$10. For membership, make your check payable to LONG ISLAND BOTANICAL SOCIETY and mail to: Lois Lindberg, Membership Chairperson, 45 Sandy Hill Rd., Oyster Bay, NY 11771.



LONG ISLAND BOTANICAL SOCIETY P.O. BOX 905 LEVITTOWN, NY 11756

